Memorandum

Subject: Woodford County

Lone Willow USA, Inc.
Old Prairie Pork Swine Finishing Facility
IDOA Facility ID #LF2030080000
CAFO - Facility Inspection

To: DWPC/FOS and RU
From: Todd R. Huson, DWPC-FOS, Peoria Region
Date: May 31, 2011

Accompanied: Star Fowler, DWPC-FOS, Peoria Region

On May 31, 2011 a CAFO facility inspection was performed at the Lone Willow USA, Inc (Old Prairie Pork) swine finishing facility. This facility is located along County Road 1600N in Metamora Township, Woodford County (NE ¼, Sect 12, T27N, R2E). The mailing address and telephone number are Exemption 6 and Exemption 7(C) Randy Leman was interviewed and accompanied us during this inspection. The weather was partly cloudy and warm with strong winds from the west by southwest.

General Information

This finishing facility was initially operated in conjunction with an artificial insemination facility and a local sow operation. The AI facility was shut down and the sow operation was converted into a finishing facility. Lone Willow USA, Inc. is owned by Bruce, Randy, and Chris Leman. They currently operate this facility, an 850-head SPF unit, and two remote 2,400-head finishing facilities (buildings) through Triple L Pork (swine management company). Randy is certified livestock manager. The facility has four full-time and one part-time employees. They own the two remote finishing facilities through New Horizon Pork.

Bruce Leman	Exemption 6 and Ex	Owner	Clark Leman	Employee
Randy Leman		Owner/Operator	Jarrod Leman	Employee
Chris Leman		Owner/Operator	John Leman	Part-Time

Swine Finishing Operation

This 12,000 head swine finishing facility (IDOA ID# LF2030080000) was constructed and populated in 2002. The facility was converted into a contract finishing facility for replacement gilts for herds in Missouri, Ohio, and Iowa. All swine are owned by The Maschhoffs, Inc. The Maschhoffs office is located at 7475 State Route 127, Carlyle, Illinois 62231 and the telephone number is (618) 594-2125. Weaned pigs are obtained from sow facilities in southern Illinois. These swine are finished from ~12# to ~270#. The facility reportedly produced ~24,000 swine annually. Swine not used as replacement gilts are typically taken to Cargill's pork slaughterhouse in Beardstown, Illinois.

Swine Finishing Facility - Specific Building Information

The facility consists of six total confinement buildings with 8' deep pits and a utility building. The utility building contains a small office, garage, maintenance area, emergency generator, and water treatment facilities. The main office and laboratory are located at the former AI facility. An aggregate access road was provided to each building.

Each ~265' long and ~63' wide total confinement building is separated into two swine finishing rooms. Each building has 6 pit fans and 12 wall ventilation fans (ten 48-inch fans and two 36-inch fans). The ventilation fans are activated through thermostats. The 36-inch fans are operated all year. The 48-inch fans are used primarily during warm weather and sealed with fabric covers in the winter months. The 20-inch, variable speed, pit fans are activated by thermostats and humidistats and are operated all year. Each building has end curtains and ridge and eve vents. Fresh air enters the buildings through the vents and is exhausted through the wall and pit fans. Heat is provided by propane heaters. The propane tank is located at the northeast corner of the facility.

Water Supply – Electrical Power (Emergency Generator)

Water is provided by three 200-deep on-site wells. The two wells located near the utility building provide potable water, water for the swine, and interior cleaning water. This water is also pumped to the AI facility and two homes. The third well located in the field west of the facility provides landscaping and exterior wash water.

Electrical power is provided Direct Energy through Ameren/Cilco distribution lines. This service has been reliable. A 200 KW emergency generator, transfer switch, and related control panels are located in the utility building. The generator and transfer switch are operational. The generator is exercised weekly and will provide sufficient power for the entire site.

Perimeter Drain Tiles

Perimeter drain tiles were installed around the foundation of each building pit, as per Section 506.304 of Title 35. These four-inch tiles discharge through two six-inch lines into the storm water lake. Each discharge line serves three buildings. Two risers were placed along each line to provide access for sampling. Randy obtains quarterly samples from each line. These samples are analyzed by PDC Laboratories, 2231 West Altorfer Drive, Peoria, Illinois 61615, (309) 692-9688. The corresponding reports are submitted to IDOA. No problems were reported. During this inspection the discharge appeared clear.

Storm Water

The structures do not have gutters or downspouts. Storm water runoff and groundwater from the perimeter drain tiles is diverted to the storm water lake located south of the facility. This lake is ~25' deep and has been stocked with fish. No runoff problems were reported.

Feed Rations – Watering

Lone Willow operates a feed mill at the former AI facility. Feed rations consist primarily of corn and soybean meal with a few additives such as lime, synthetic lysine (amino acid), and distillers grain. The diet is determined by The Maschhoffs. Livestock are watered through hanging nipple watering system in the buildings. These units reportedly conserve water and reduce spillage.

Wastewater Storage/Treatment

The six confinement building pits are 265' long, 63' wide, and 8' deep with a maximum operating depth of 7.5'. The pits were divided into two sections by center walls with 6 equalization ports. Each pit has a design capacity of ~0.94 MG. The combined capacity of all pits is ~5.6 MG. However, the depth normally ranges from 1.5' to 6'. A minimum depth of ~1.5' is maintained in the pits as seed following disposal operations. The pits currently contain ~5' of wastewater.

The pits were previously connected by 6" PVC sewer system with a lift station (submersible pump in a 5' diameter RPC wet well). Wastewater was distributed and collected with two 12-hole 4" PVC manifolds at the ends of the pits. Wastewater was recycled through the pits to promote mixing and to prevent excessive solids settling. However, this practice has been discontinued. The valves are closed and the pits are currently operated independently. Also, previous attempts to remove solids through two solids separators, three cartridge filters, and polymer feed equipment were not successful and were abandoned. The solids separators and filters are still on-site.

Wastewater Disposal

Wastewater is removed from each pit is separately. A PTO driven V6 Balzer agitator is placed in a pump-out port at one end of the pit and a PTO driven DODA portable pump is place in a pump-out port at the other end. After the wastewater is sufficiently mixed, it is pumped through a flexible hose to an above ground transfer tank, semi-tank truck, or application vehicle.

The ~10,000 gallon elevated transfer tank was installed on a steel frame just west of the northwest confinement building. Wastewater is pumped into this tank then transferred to semi-tank trucks. The elevated tank has significantly improved truck loading operations. This tank has an overflow line that drains to the northwest building pit. A drain was also placed in the concrete slab beneath the tank. Any spillage during loading also drains to the northwest building pit.

This wastewater is applied to cropland owned by local farmers Joe Backman and Dave Obery. They reportedly have ~5,000 acres within six miles of the facility. Wastewater is normally pumped from the pits into the elevated tank then transferred to the two semi-tank trucks and hauled to the fields. Each truck has ~6,000 gallons capacity. Wastewater is then pumped into a 6,500-gal Balzer application wagon with five injection knives and injected into the soil. The wagon has a hydraulic transfer pump. Joe Backman and Dave Obery each own one truck and Lone Willow USA owns the application wagon. The wagon is pulled by Joe Backman's front wheel assist tractor.

Wastewater is applied to corn and bean fields in the fall. Wastewater was also applied to a wheat field once in the summer. The wastewater is applied with GPS controls (typically around 4,000-gal/acre). The fields are rotated each year. Joe Backman or Clark Leman normally apply the wastewater. Randy monitors application rates and obtains samples. This facility typically applies 3.5 MG each year.

Dead Swine Disposal

Dead swine are removed from the site and composted in a two open front sheds located at the former AI facility (~¼ miles east of the finishing units). The carbon source consisting of sawdust, old straw, and leaves (from the township) is stored on a concrete pad between the buildings. The piles are turned two to three times prior to disposal. The decomposition of the dead pigs has reportedly been satisfactory. During this inspection a few bones and carcasses were exposed. Randy indicated that some additional cover will reportedly be added. The compost is used as fertilizer at the swine facilities. The mortality rate at this facility has been reduced from 3-4% to 2-3%, since the facility converted to replacement gilt production.

Odor Control Measures - Observations

Aus and pine trees were planted along the east and west perimeter of the farm as an odor control measure. These trees reportedly collect a significant amount of dust from the building ventilation and pit fans during warm weather. The pine trees were planted just outside the aus trees to collect dust in cold weather. Also, all fans are cleaned every time a room floors are cleaned. The facility attempted to control odors by pumping ozone into the pits and rooms above the pits. This practice did not produce the desired results and was suspended. The ozone concentrations exceeded the OSHA and FDA 0.05-ppm limit for indoor environments.

The Peoria Regional Office received numerous odor complaints when the facility was placed in operation. However, the Agency and the facility have not received any odor complaints recently. During this inspection, an obvious swine and swine waste odor was noted immediately downwind of the buildings.

Wastewater & Soils Test

Randy obtains wastewater samples during each application. Randy collects ~6 samples from each building pit. The samples from two pits are combined to form one composite sample. These three composite samples are sent to Midwest Laboratories, 13611 B Street, Omaha, Nebraska 68144, (402) 334-7770 for analysis. The manure value is based on these tests results. Soil tests are performed by Agri-Management Solutions, Inc., 14401 South 700 West, Wanatah, Indiana 46390, (219) 204-0402. Soil samples are obtained from a grid on 3-year cycle. Wastewater and soil test results are reportedly used to determine the actual application rates.

CNMP

A CNMP was developed for this facility by Terry Feldman of Maurer-Stutz, Inc., 7615 N. Harker Drive, Peoria Illinois 61615, (309) 6923-7615.

CAFO Designation

This 12,000-head swine finishing facility is a large confined animal feeding operation, as defined by the clean water act. The facility has not had a manure release and is not designed to discharge. Therefore, an NDPES permit is not required at this time.

East Contract Finish Facility – Two Remote Finishing Facilities

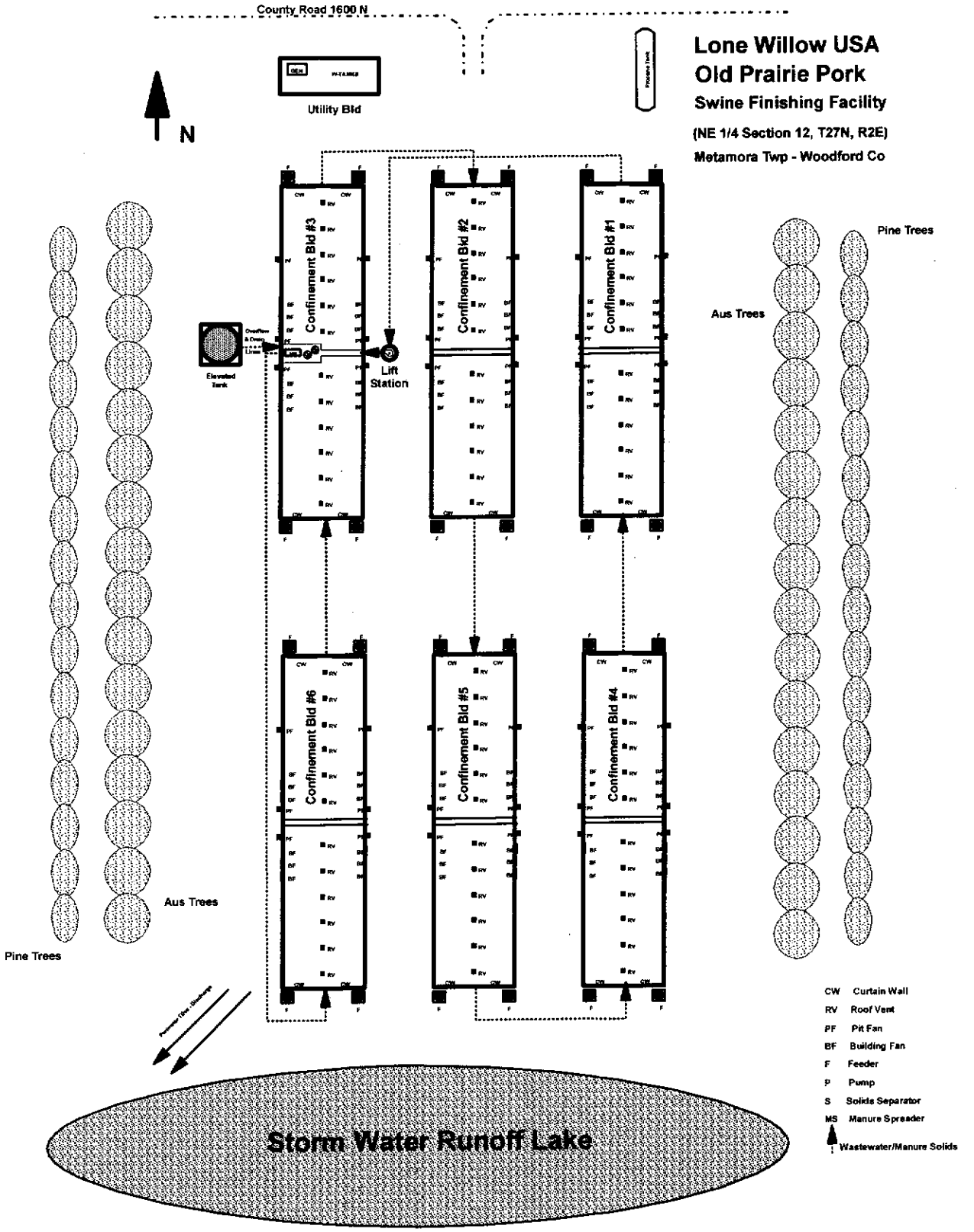
The sow facility located ~3 ½ miles east of the 12,000-head finishing facility was converted into a contract finishing facility. The large confinement building with 8' deep pit at this site is used as an 850-head finishing unit. The nursery unit is not utilized. Wastewater generated in this finishing building is disposed in conjunction with the wastewater from the 12,000-head facility. The disposal of this wastewater was reportedly incorporated in the CNMP. Wastewater generated at the two remote 2,400-head finishing facilities is stored in deep pits and ultimately spread on local cropland next to these facilities.

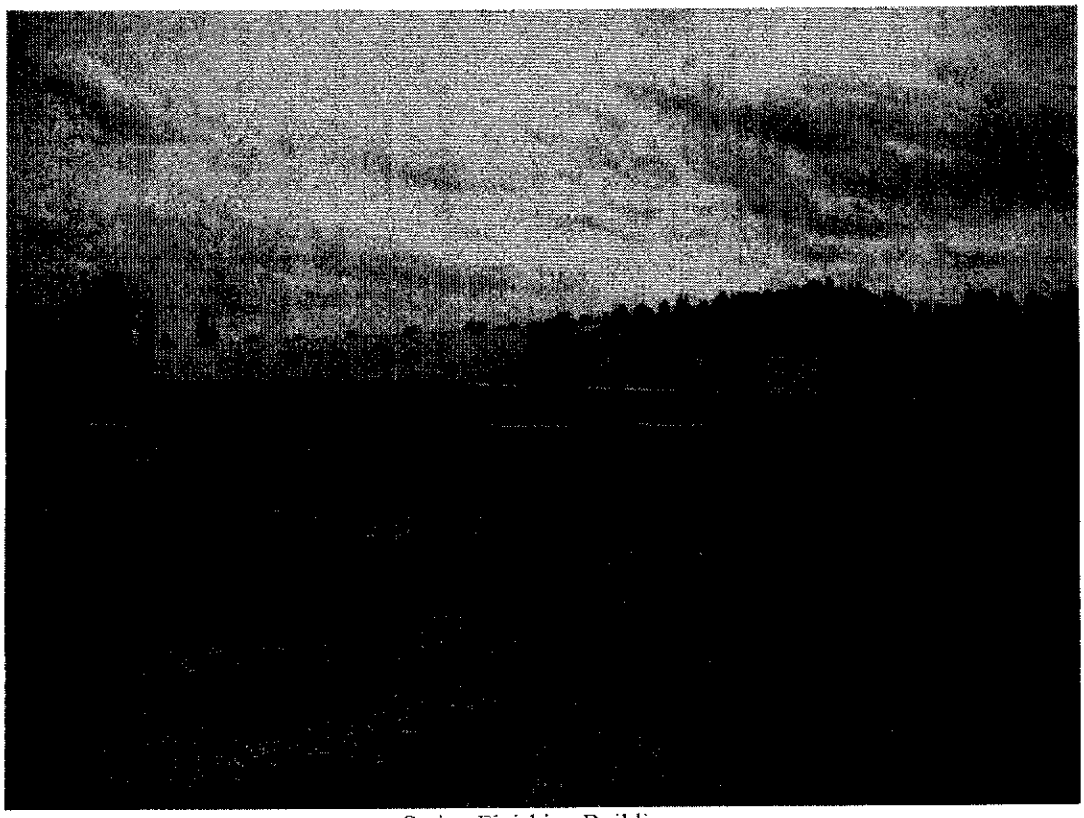
trh/

Todd R Huson

Att: Site Diagrams
Photographs

CC: Peoria Files


County Road 1600 N
Utility Bld
N
Lone Willow USA
Old Prairie Pork
Swine Finishing Facility
(NE 1/4 Section 12, T27N, R2E)
Metamora Twp - Woodford Co
Confinement Bld #3
Confinement Bld #2
Confinement Bld #1
Confinement Bld #6
Confinement Bld #5
Confinement Bld #4
Elevated Tank
Lift Station
Pine Trees
Aus Trees
Aus Trees
Pine Trees
Storm Water Runoff Lake
CW Curtain Wall
RV Roof Vent
PF Pit Fan
BF Building Fan
F Feeder
P Pump
S Solids Separator
MS Manure Spreader
Wastewater/Manure Solids



Swing Finishing Buildings

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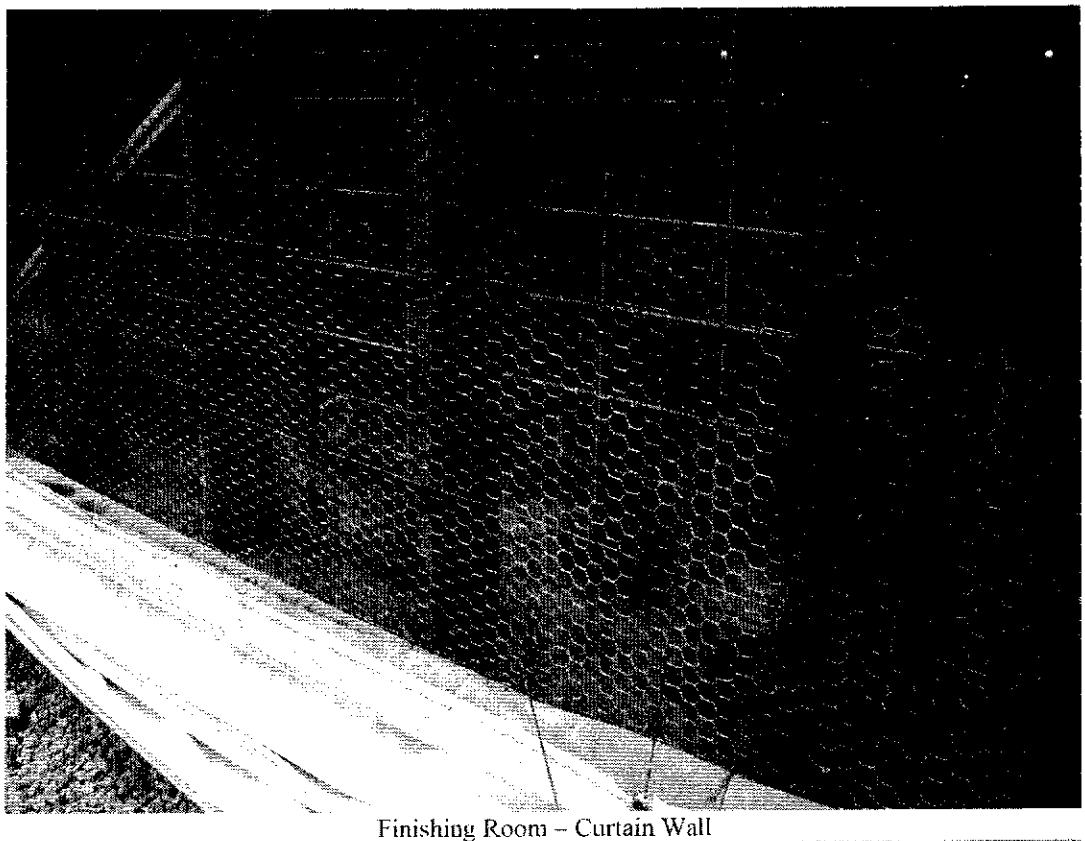
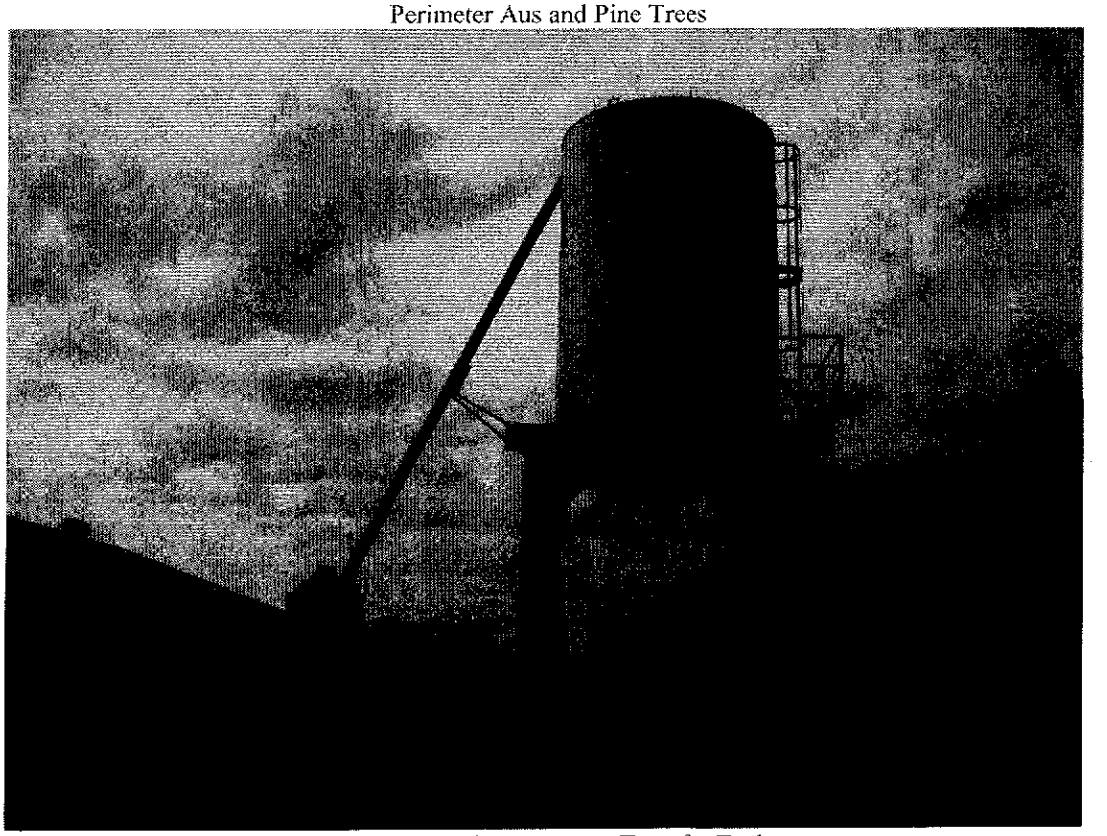


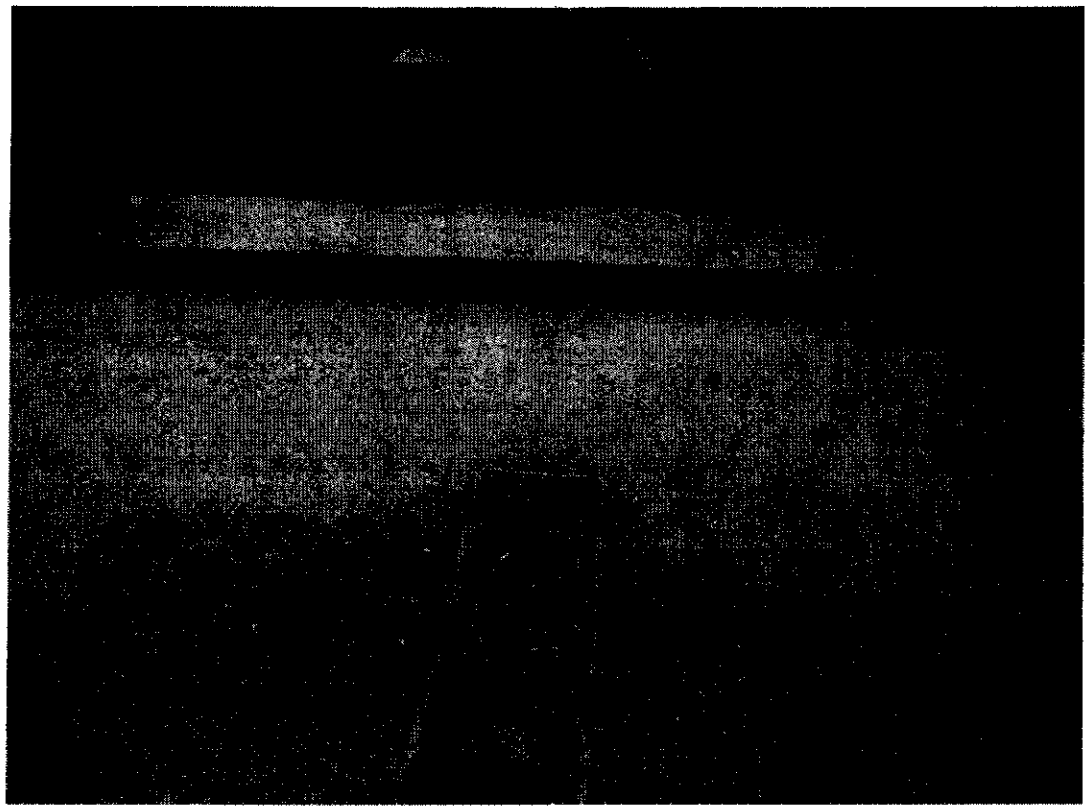
Finishing Room – Curtain Wall

Swing Finishing Buildings – Feeders and Curtain Walls

Perimeter Aus and Pine Trees

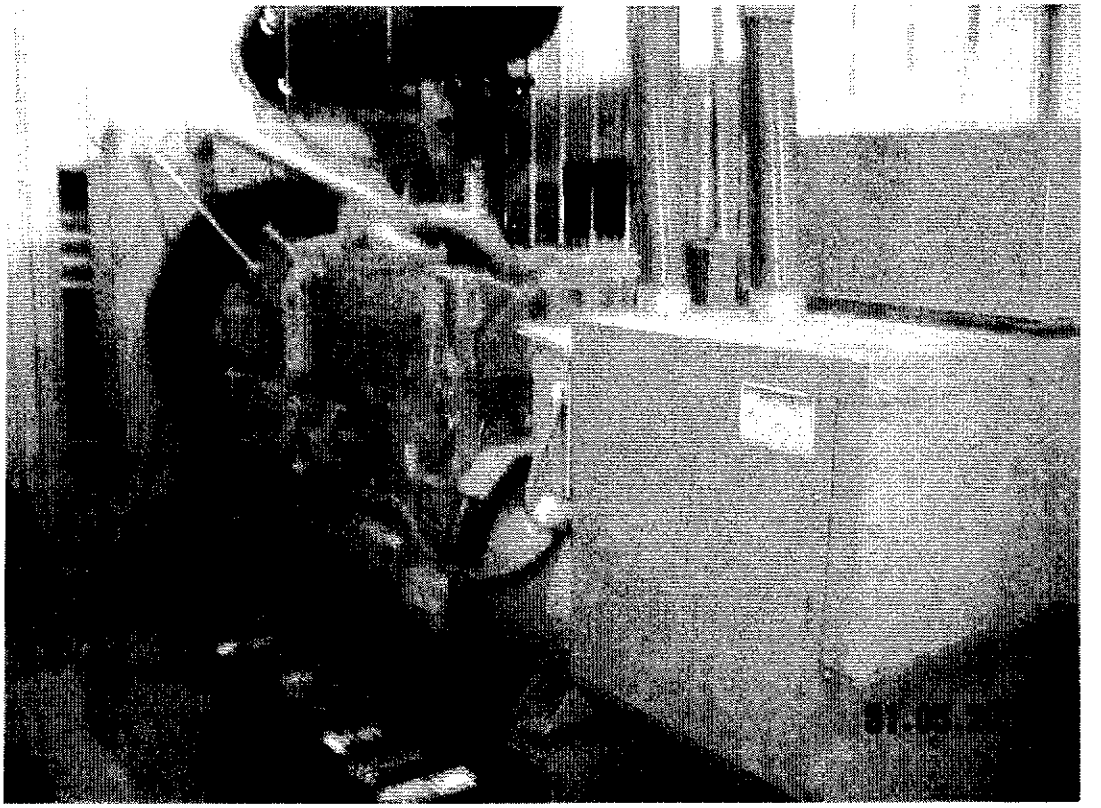


Above-Ground Wastewater Transfer Tank



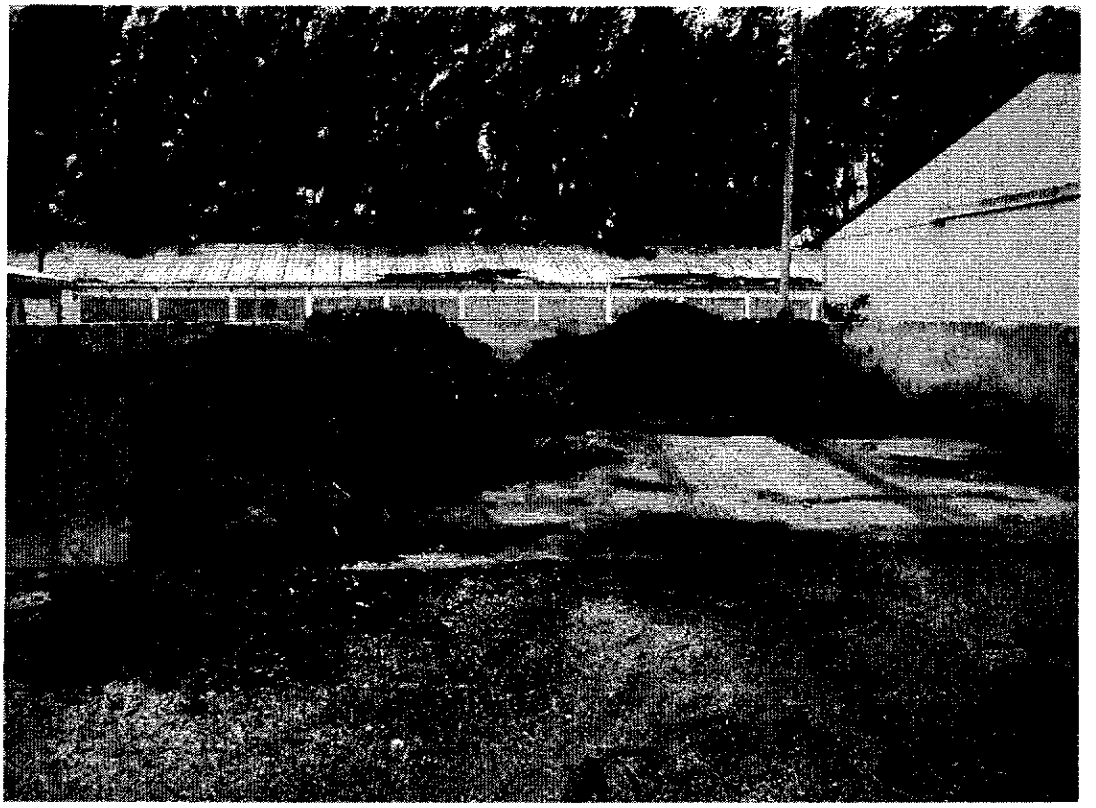
Above-Ground Wastewater Transfer Tank – Drain to Building Pit

Perimeter Tile Discharges to Storm Water Lake



Emergency Generator in Utility Building

Open Front Compost Shed



Carbon Source Storage Pad

Open Front Compost Shed